



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: CFM56-3C-1 BYPASS RATIO: 5.1
 UNIQUE ID NUMBER: 1CM007 PRESSURE RATIO (π_{00}): 25.5
 COMBUSTOR:
 ENGINE TYPE: TF RATED THRUST (F_{00}) (kN): 104.6

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	4.3	65.7	53.1	9.9
AS % OF ORIGINAL LIMIT	21.7	55.7	58.3	42.4
AS % OF CAEP/2 LIMIT (NO _x)			72.9	
AS % OF CAEP/4 LIMIT (NO _x)			88.8	
AS % OF CAEP/6 LIMIT (NO _x)			100.9	
AS % OF CAEP/8 LIMIT (NO _x)			121.3	

DATA STATUS

- PRE-REGULATION
 - CERTIFICATION
 x REVISED (SEE REMARKS)

TEST ENGINE STATUS

x NEWLY MANUFACTURED ENGINES
 - DEDICATED ENGINES TO PRODUCTION STANDARD
 - OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE
 (ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
 x OUT OF PRODUCTION (DATE: -)
 - OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F ₀₀)	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	1.154	0.03	0.90	20.70	7.7
CLIMB OUT	85	2.2	0.954	0.04	0.90	17.80	3.9
APPROACH	30	4.0	0.336	0.07	3.10	9.10	2.5
IDLE	7	26.0	0.124	1.42	26.80	4.30	2.3
LTO TOTAL FUEL (kg) or EMISSIONS (g)			448	287	5591	4810	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D _p /F ₀₀ (g/kN) or AVERAGE SN (MAX)				2.8	53.5	45.8	7.7
SIGMA (D _p /F ₀₀ in g/kN, or SN)				0.4	2.9	0.8	0.8
RANGE (D _p /F ₀₀ in g/kN, or SN)				2.33-3.06	51.2-56.7	45.3-46.8	6.8-8.3

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS
 STAGE BLEED 0 (% CORE FLOW) AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	96-97.5
TEMPERATURE (K)	279-286
ABS HUMIDITY (kg/kg)	0.002-0.009

FUEL

SPEC	Jet A
H/C	1.93
AROM (%)	16

MANUFACTURER: CFM International
 TEST ORGANIZATION: CFM56 Evaluation Engineering
 TEST LOCATION: Peebles Site IVD
 TEST DATES: 11/11/1983-14/11/1983

REMARKS

1. Ref GE Report R84AEB579.
2. Engine S/N 692441.
3. Revised based on 3/89 production status cycle.

Compliance with Fuel Venting requirements: - ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)